

Executive Summary

F1-065

Project Title: Cat Creek watershed Project, Review of the Forest Road System for Repair, Relocation or Obliteration. Eldorado National Forest, US Forest Service.

Project Description: An Interdisciplinary (ID) team would develop a process and then review the forest road system in the Cat Creek watershed to make recommendations concerning which roads should be repaired, relocated or obliterated. If these recommendations are implemented, there will be a reduction in the amount of sediment moving into the Cosumnes River. Sediment reduction will result in improvements in aquatic habitat for fall run Chinook salmon and water quality.

Approach/Tasks/Funding: An ID team would initiate this project in the early winter in FY 1998 and would complete it by the summer of FY 1998. Outcome would be a set of recommendations for decision makers and a process that could be used in other watersheds.

Justification for Project and Funding by CALFED: Project would address land management practices (forest roads) that have resulted in widespread erosion in a watershed with highly erodible soils. Currently the watershed is rated as being in poor condition. Project would develop a process that could be used to review forest roads on National Forest lands in the entire Cosumnes River basin. The process could also be used to review road systems on private timber lands. Implementation of project recommendations would improve habitat for priority aquatic species including San Joaquin and East-side Delta tributaries fall run Chinook salmon.

Budget Costs and Third Party Impacts: \$38,000 is requested to complete this project. No third party impacts are planned.

Applicant Qualifications: Eldorado National Forest has a wide range of specialists available to support this project and no money to fund it.

Monitoring and Data Evaluation: California Department of Fish and Game (CDFG) has implemented a long term bioassessment monitoring project in the Cosumnes Basin with the support of the Nature Conservancy and the US Environmental Protection Agency. Data collected and analysed from their permanent survey sites could be used by Eldorado National Forest to monitor effects of implemented recommendations.

Local Support/Coordination: Possible partners include CDFG, the Nature Conservancy and private timber companies. This proposal would also support the CALFED non-ecosystem objective of improving water quality in the Bay-Delta.

DWR WAREHOUSE
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CALFED Category III Proposal

Cat Creek Watershed Project

Review of Forest Road System for
Repair, Relocation or Obliteration

Submitted by: USDA Forest Service
Eldorado National Forest
John Phipps, Forest Supervisor
100 Forni Road
Placerville CA 95667

Technical Contact: Cheryl Mulder, Hydrologist
John Carr, Financial Contact
Placerville CA 95667
(916)622-5061 office
(916)621-5297 fax

**RFP Project Group Type: Group 3: Services, Watershed Management
Planning and Implementation**

Project Description & Approach

Money requested by this proposal would fund an interdisciplinary team (ID) that would develop a process and then review the forest road system in the Cat Creek Watershed. The objective of team would be to provide decision makers with recommendations about which roads to repair, relocate, gate or obliterate. The process developed by this team would be used to review the entire forest road system on National Forest lands in the Cosumnes Basin.

Location

The project is located in Eldorado County in the Cat Creek Subwatershed that flows into the Middlefork of the Cosumnes River.

Expected Benefits

Riparian resources, aquatic habitat and associated beneficial uses of water will be enhanced by decreasing non-point sources of pollution. Roads are the principle cause of accelerated erosion in forests in the western United States.

The Cosumnes River is unique in being the last major tributary of the western slope of the Sierra Nevada without a dam. California Department of Fish and Game (CDFG) Region II records document the Cosumnes River as historically supporting a fall chinook salmon run at least up to the Michigan Bar Road Bridge near Rancho Murieta. In the 1950's and 1960's the run averaged about 1000 fish. That number declined to 100-200 by the mid-1980's. There are no reports of a Cosumnes salmon run in the 1990's.

Accelerated erosion from forest roads contributes fine sediment loads that are detrimental to salmonid species through the reduction of the suitability of spawning gravels. Repair, relocation or obliteration of forest roads will result in a reduction of fine sediment transportation from upland areas.

The implementation of recommendations generated by this proposal would also improve water quality in the Cosumnes River. The 1996 Sierra Nevada Ecosystem Report (SNEP) report found:

The aquatic/riparian systems are the most altered habitat in the Sierra Nevada. Riparian areas have been damaged extensively. Extensive sediment yield into streams remains a widespread water quality problem.

Background

The Cat Creek Watershed covers 5690 acres all of which are in US Forest Service ownership. The watershed ranges in elevation from 4340 feet at its confluence with the Middle Fork of the Cosumnes to 7620 feet at Plummer Ridge. The entire watershed is underlain by highly erodible Mesozoic granitic rock. Forty percent of the watershed is represented by Andesitic mudflows of the Mehrten formation which overlie the granitic rock. Springs are common at this contact as is the potential for small mass failures. Because of these natural conditions, a large percentage of this watershed is extremely sensitive to management activities that compact or disturb soil.

A cumulative watershed effect analysis conducted by the Eldorado National Forest in 1988, and updated in 1993, found the watershed to be in poor condition. Gully erosion has occurred and continues to occur in nearly all tributaries and in certain critical reaches of the mainstem of Cat Creek. The principle cause of this damage is the adverse effects of multiple poor management practices in the past including road construction on the highly erodible soils of this watershed.

The 1996 SNEP study of the Camp Creek Watershed on the Eldorado National Forest found the decade mean sediment output was 2.5 mT/ha per year. Three subwatersheds make up this watershed and have the following miles of road per acre: Lower Camp Creek 3.11 miles/acre, Middle Camp Creek 4.64 miles/acre and Upper Middle Creek 5.4 miles/acre. Sediment output from the Cat Creek watershed has not been determined. The watershed has 4.43 miles/acre of roads.

Monitoring and Data Evaluation

A survey/monitoring process for the Cosumnes Basin has been initiated by CDFG as part of the Cosumnes Watershed Protection Demonstration Project. Information gathered by CDFG can be used by the Eldorado National Forest to determine the effectiveness of road system management strategies recommended by ID teams once they are implemented. In 1993, CDFG with support and funding from the Nature Conservancy and the US Environmental Protection Agency established eleven permanent sites within the Cosumnes Basin to assess the fisheries resources. In 1995, benthic macroinvertebrates were surveyed. These surveys were part of a preliminary effort to develop a long term monitoring program with the following components:

- Aquatic habitat and channel-type characterization
- Ambient water chemistry
- Bioassessment survey using benthic macroinvertebrates
- Bioassessment survey using fish and amphibians

Implementability

National Forest management is controlled and guided by numerous state and federal laws, regulations and policies. All forest management projects will

be in compliance with legislation that includes but is not limited to the following:

Organic Administration Act of 1897; Multiple Use Sustained Yield

Act of 1960; National Forest Management Act (NFMA) of 1976; National Environmental Policy Act (NEPA) of 1969; Endangered Species Act of 1973; and the Clean Water Act of 1972.

Cost

\$38,000 is requested to cover the salaries of core ID team members for 25 days. Core ID team members would include a hydrologist, forest engineer, wildlife biologist, forester, fire specialist, recreation specialist and writer editor/NEPA specialist. This sum also covers vehicle costs for team members and 10% for Forest Service administrative overhead. The project would be authorized by an agreement under the authority of the Granger-Thye Act.

If funded, the project would be implemented in the early winter of FY98. There is the potential for future CALFED proposals to implement the ID team's recommendations.

No third party impacts are anticipated.

Applicant Qualifications

The Forest Service employs a staff of professionals who are trained to complete this project. The staff includes but is not limited to hydrologists, a geologist, a soils scientist, botanists, a fire management specialist, archaeologists, wildlife biologists, road construction and maintenance crews, heavy equipment operators and forest and road engineers.

There will be no contract work.